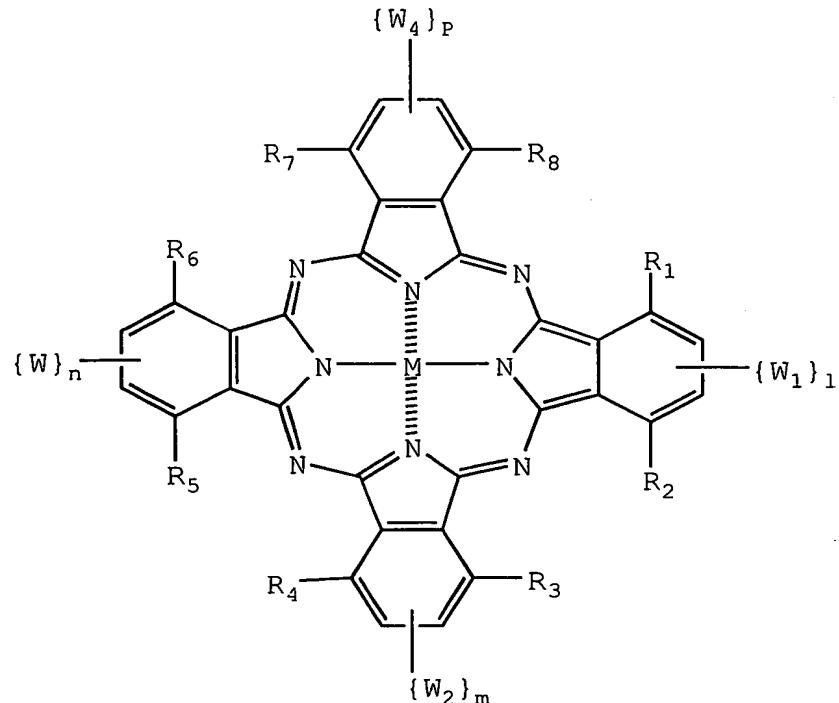


CLAIMS

1. An ink comprising a water-soluble phthalocyanine compound, wherein in the spectral absorption curve of an aqueous solution of said phthalocyanine compound, the absorbance ratio b/a of the maximum absorbance b in the absorption band of 660 to 680 nm and the maximum absorbance a in the absorption band of 600 to 640 nm is less than 0.8 and the counter ion for the ionic hydrophilic group of said phthalocyanine compound is lithium ion.

2. An ink comprising a water-soluble phthalocyanine compound, wherein said phthalocyanine compound is represented by the following formula (I):

Formula (I) :



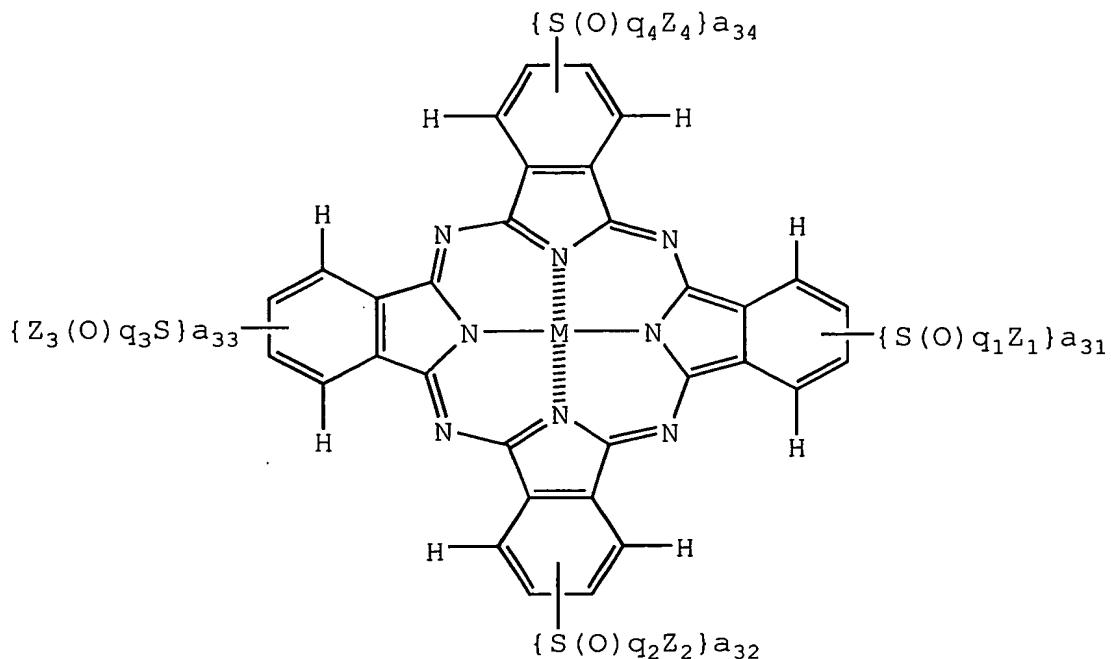
wherein  $R_1$ ,  $R_2$ ,  $R_3$ ,  $R_4$ ,  $R_5$ ,  $R_6$ ,  $R_7$  and  $R_8$  each independently represents a hydrogen atom, a halogen atom, an alkyl group, a cycloalkyl group, an alkenyl group, an aralkyl group, an aryl group, a heterocyclic group, a cyano group, a hydroxyl group, a nitro group, an amino group, an alkylamino group, an alkoxy group, an aryloxy group, an amido group, an arylamino group, a ureido group, a sulfamoylamino group, an alkylthio group, an arylthio group, an alkoxy carbonylamino group, a sulfonamido group, a carbamoyl group, a sulfamoyl group, a sulfonyl group, an alkoxy carbonyl group, a heterocyclic oxy group, an azo group, an acyloxy group, a carbamoyloxy group, a silyloxy group, an aryloxycarbonyl group, an aryloxycarbonylamino group, an imido group, a

heterocyclic thio group, a sulfinyl group, a phosphoryl group or an acyl group and each may further have a substituent;

$W_1$ ,  $W_2$ ,  $W_3$  and  $W_4$  each independently represents the group represented by  $R_1$ ,  $R_2$ ,  $R_3$ ,  $R_4$ ,  $R_5$ ,  $R_6$ ,  $R_7$  and  $R_8$ , a sulfonylsulfamoyl group or an acylsulfamoyl group and each may further have a substituent, provided that at least one of  $W_1$ ,  $W_2$ ,  $W_3$  and  $W_4$  is an ionic hydrophilic group by itself or has an ionic hydrophilic group as a substituent, provided that the counter ion for the ionic hydrophilic group is lithium ion;  $l$ ,  $m$ ,  $n$  and  $p$  each represents an integer of 1 or 2; and  $M$  represents a hydrogen atom, a metal element, a metal oxide, a metal hydroxide or a metal halide.

3. The ink as claimed in claim 2, wherein said formula (I) is represented by the following formula (II):

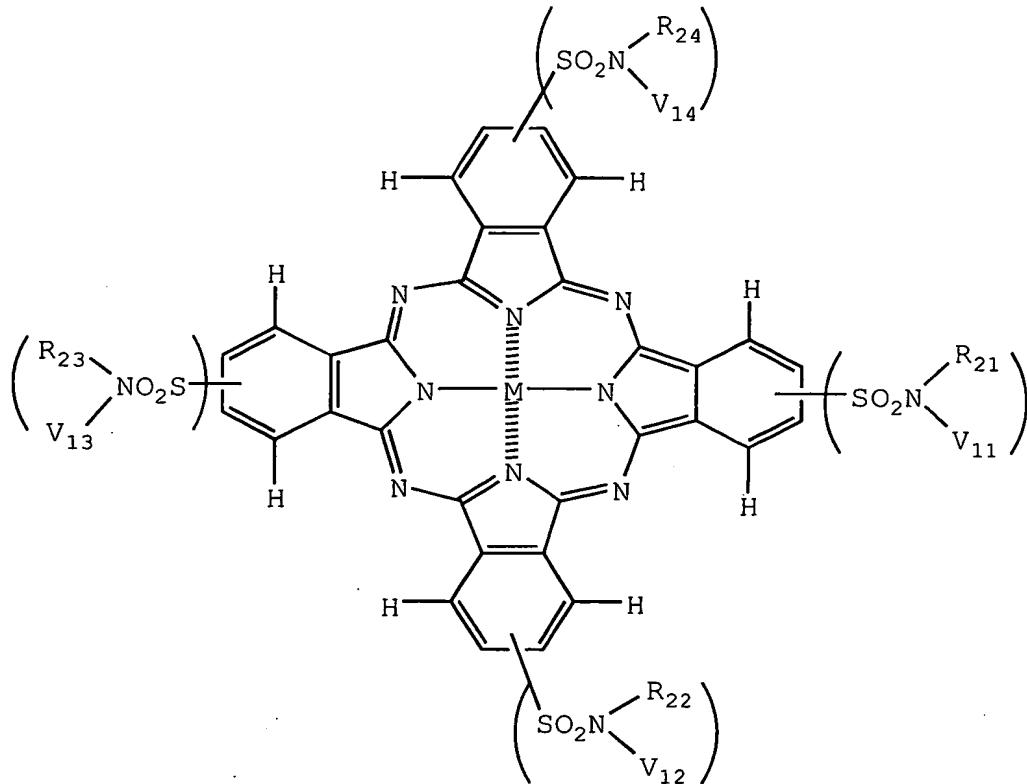
Formula (II) :



wherein  $Z_1$ ,  $Z_2$ ,  $Z_3$  and  $Z_4$  each independently represents a substituted or unsubstituted alkyl group, a substituted or unsubstituted cycloalkyl group, a substituted or unsubstituted alkenyl group, a substituted or unsubstituted aralkyl group, a substituted or unsubstituted aryl group or a substituted or unsubstituted heterocyclic group,  $q_1$ ,  $q_2$ ,  $q_3$  and  $q_4$  each independently represents an integer of 1 or 2,  $a_{31}$ ,  $a_{32}$ ,  $a_{33}$  and  $a_{34}$  each independently represents an integer of 1 or 2,  $M$  has the same meaning as  $M$  in formula (I), and at least one of  $Z_1$ ,  $Z_2$ ,  $Z_3$  and  $Z_4$  has an ionic hydrophilic group as a substituent, provided that the counter ion for the ionic hydrophilic group is lithium ion.

4. The ink as claimed in claim 2, wherein said formula (I) is represented by the following formula (III):

Formula (III):



wherein  $R_{21}$ ,  $R_{22}$ ,  $R_{23}$  and  $R_{24}$  each independently represents a hydrogen atom, a substituted or unsubstituted alkyl group, a substituted or unsubstituted cycloalkyl group, a substituted or unsubstituted alkenyl group, a substituted or unsubstituted aralkyl group, a substituted or unsubstituted aryl group or a substituted or unsubstituted heterocyclic group,  $V_{11}$ ,  $V_{12}$ ,  $V_{13}$  and  $V_{14}$  each independently represents a substituted or unsubstituted alkyl group, a substituted or unsubstituted cycloalkyl group, a

substituted or unsubstituted alkenyl group, a substituted or unsubstituted aralkyl group, a substituted or unsubstituted aryl group, or a substituted or unsubstituted heterocyclic group, M has the same meaning as M in formula (I), and at least one of R<sub>21</sub>, R<sub>22</sub>, R<sub>23</sub>, R<sub>24</sub>, V<sub>11</sub>, V<sub>12</sub>, V<sub>13</sub> and V<sub>14</sub> has an ionic hydrophilic group as a substituent, provided that the counter ion for the ionic hydrophilic group is lithium ion.

5. The ink as claimed in claim 3, wherein in formula (II), q<sub>1</sub>=q<sub>2</sub>=q<sub>3</sub>=q<sub>4</sub>=2.

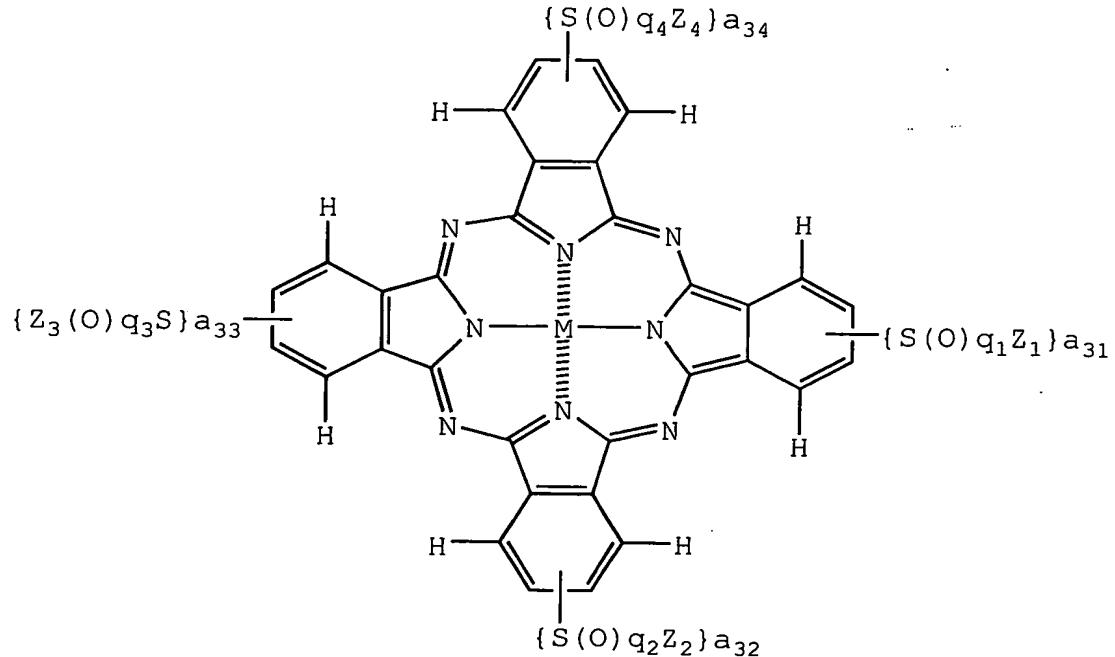
6. An ink for ink jetting, comprising the ink claimed in any one of claims 1 to 5.

7. An ink jet recording method comprising forming an image on an image-receiving material using the ink for ink jetting claimed in claim 6, the image receiving material comprising a support having thereon an ink image-receiving layer containing a white inorganic pigment particle.

8. A method for improving ozone gas discoloration of an image recorded material, comprising forming an image using the ink claimed in claims 1 to 6.

9. A water-soluble phthalocyanine compound represented by the following formula (IV) :

**Formula (IV) :**



wherein Z<sub>1</sub>, Z<sub>2</sub>, Z<sub>3</sub> and Z<sub>4</sub> each independently represents a substituted or unsubstituted alkyl group, a substituted or unsubstituted cycloalkyl group, a substituted or unsubstituted alkenyl group, a substituted or unsubstituted aralkyl group, a substituted or unsubstituted aryl group or a substituted or unsubstituted heterocyclic group, q<sub>1</sub>, q<sub>2</sub>, q<sub>3</sub> and q<sub>4</sub> each independently represents an integer of 1 or 2, a<sub>31</sub>, a<sub>32</sub>, a<sub>33</sub> and a<sub>34</sub> each independently represents an integer of 1 or 2, M has the same meaning as M in formula (I), and at least one of Z<sub>1</sub>, Z<sub>2</sub>, Z<sub>3</sub> and Z<sub>4</sub> has an ionic hydrophilic group as a substituent, provided that the counter ion for the ionic hydrophilic group is lithium.